

Amendments to the claims:

Claims 1-13: (canceled)

14. (currently amended) A coolant circuit (10), comprising: with at least one heat source (12), a radiator (14), and a bypass line (22), which connects a radiator inlet (18) to a radiator return (20) and whose junction (24) has a control valve (26) disposed in it, whose throttle body (58) ~~can be electrically triggered~~ is controlled by a control means as a function of operating parameters and environmental parameters by means of at least one control unit (40, 42) and divides the coolant flow between the radiator inlet (18) and the bypass line (22), ~~characterized in that~~

wherein according to a characteristic curve of the control valve (26), the control unit (40, 42) determines a set-point value (50) for the position of the throttle body (58), which sets a ratio of the radiator volume flow to the total coolant flow at the control valve (26) according to the following equation:

$$x_{\text{set-point}} = (T_{MA} - T_{Me \text{ set-point}}) / (T_{MA} - T_{KA})$$

where T_{MA} is the temperature of the outlet (36) of the bypass line (22), at the outlet of the engine (12), or at the control valve (26), $T_{Me \text{ set-point}}$ is the set-point temperature at the inlet of the engine (12), and T_{KA} is the temperature at the outlet of the radiator (14), and

~~which equals the ratio between the difference of a temperature at the outlet (36) of the bypass line (22) minus a set point temperature at the inlet of the heat source (12) and the difference of the temperature at the outlet (36) of the bypass line (22) minus a temperature at the outlet of the radiator (14), where the ratio of the radiator volume flow to the total coolant flow is set equal to zero when there is a negative value and is limited to one when there is a value greater than one.~~

15. (currently amended) The coolant circuit (10) according to claim 4 ~~14~~, characterized in that wherein the throttle body (58) is embodied as a valve tap, has at least one distributor conduit (72) passing through it, and can be moved around a rotation axis (64) by a drive mechanism (44).

16. (currently amended) The coolant circuit (10) according to claim 2 ~~15~~, characterized in that wherein the throttle body (58) has a spherical surface and an internal distributor conduit (72), which extends lateral to a rotation axis (64) and is open at one circumference surface (82) essentially parallel to the rotation axis (64), while the opposite circumference surface (84) is closed.

17. (currently amended) The coolant circuit (10) according to claim 2 ~~15~~, characterized in that wherein the throttle body (58) is supported in a valve body (60) that has a temperature sensor (32), which protrudes into the distributor conduit (72) in ~~the~~ a vicinity of the rotation axis (64).

18. (currently amended) The coolant circuit (10) according to claim 4 ~~14~~, ~~characterized in that wherein the~~ a first electronic control unit (40) generates the set-point value (50) for the position of the throttle body (58) and ~~the~~ a second electronic control unit (42), which is integrated into the control valve (26), processes this set-point value, along with a detected actual value (52) of the position of the throttle body (58) to produce a correcting variable for the position of the throttle body (58).

19. (currently amended) The coolant circuit (10) according to claim 5 ~~18~~, ~~characterized in that wherein~~ at least one of the control units (40, 42) ~~can be programmed~~ is programmable for different valve characteristic curves.

20. (canceled)

21. (currently amended) The coolant circuit (10) according to claim 4 ~~14~~, ~~characterized in that wherein~~ the control is subordinate to a regulation as a function of a temperature at the inlet of the heat source (12).

22. (currently amended) The coolant circuit (10) according to claim 8 ~~21~~, ~~characterized in that wherein~~ the correcting variable of the regulating device is limited to a part of the adjustment path of the throttle body (58).

23. (currently amended) The coolant circuit (10) according to claim 8 21, ~~characterized in that~~ wherein the regulating device is a gain-scheduling P regulator.

24. (canceled)

25. (canceled)

26. (canceled)